Lower Mississippi River Sub-basin Committee
Vicksburg, MS
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Participants:

Jess Barr, Louisiana Cotton Association
Phil Bass, U.S. EPA/Gulf of Mexico Program
Ken Brazil, Arkansas Natural Resources Commission
Sarah Clem, Arkansas Department of Environmental Quality
Joe Conti, USDA NRCS-Louisiana
Doug Daigle, LMR Sub-basin Committee
Paul Davis, Tennessee Water Pollution Control, Dept. of Environmental Conservation
Dodd Galbreath, Tennessee Department of Agriculture
Vernon Hartley, Mississippi Farm Bureau Federation
Richard Ingram, Mississippi Dept. of Environmental Quality
Dugan Sabins, Louisiana Dept. of Environmental Quality
Cliff Snyder, Potash & Phosphate Institute
Ken Teague, EPA Region 6
Larinda Tervelt, EPA Region 4
Jim Wise, Arkansas Dept. of Environmental Quality

Agenda:

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Updates on Lower Miss. River (LMR) Sub-basin Activities

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Hypoxia Action Plan Revision Process

Sub-basin Committee/LMRCC Cooperation Development

Adjourn

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Updates on Sub-basin Activities

Cliff Snyder, Potash & Phosphate Institute: PPI has continued to develop its Cotton Fertilizer Best Management Practices Initiative, which provides guidance on BMPs, new technologies. Working groups are being formed with leading farmers nominated by Conservation Districts, Extension Service, and others. This effort is consistent with NRCS's Tier III guidelines for the Conservation Security Program. A draft brochure is being prepared, and information is posted on the PPI website ("Best Management Practices for Fertilizer: Cotton", at www.ppi-ppic.org/southeast.)

The information is being shared with the Cotton State Support Group. PPI is working with Miss. State Ag on yield monitoring. Yield monitoring for sugar cane is also being developed. There isn't a good measure of impacts of technology on environmental quality, and we need that for farmer acceptance.

Ken Brazil, AR Natural Resources Commission: Arkansas, on behalf of the Sub-basin Committee, submitted a grant proposal to EPA Gulf of Mexico Program, as part of the joint funding proposal with other Sub-basin Committees from last year, and have heard that it's being approved. We have a couple of CREP initiatives in northwest Arkansas.

The Corps of Engineers has completed the assessment process for stream mitigation in Arkansas. The Natural Resources Commission is expanding its wetland mitigation banking program to include stream mitigation, and looking for willing landowners to do stream restoration. Many Arkansas streams have been seriously incised, and are no longer connected to floodplains or riparian areas, with a loss of retention and absorption of nutrients. (Response to question: An "Arkansas-White-Red Interstate Advisory Committee" was established some time ago, and meets annually.)

Paul Davis, TN Water Pollution Control: Within the last month, Tennessee submitted a grant proposal for its portion of the EMAP program, in collaboration with the Tennessee Water Science Center. There have also been discussions in the Ohio River Sub-basin Committee about forming a Tennessee River Sub-basin group.

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Updates on Sub-basin Activities (continued)

Jim Wise, AR Dept. of Environmental Quality: The states on the Red River met recently to discuss issues relating to that river. Nutrients issues were discussed. Different states have different nutrient standards, which complicates things.

Dodd Galbreath, TN Department of Agriculture: The TN Department of Agriculture is the only ag department with a 319 program. We work on water management through the Soil & Water Conservation Districts, and with NRCS. In the rural areas, we have some good news. BMP implementation is becoming more sophisticated. TMDLs and watershed planning are required by EPA, and we're using 303 D listing strategically. 50% of the streams in Tennessee flow through pasture, since beef is the number one livestock industry.

Funds for 319 are decreasing, but the Tennessee Agricultural Resource Fund has been increasing (it's funded by a real estate tax.) NRCS in the state is having trouble with staffing as funding decreases, and can't provide technical assistance to meet the demand. We're moving to contract services in response.

In the urban areas, there's a new awareness of the importance of sustainable development. William McDonough, well-known for green design, is speaking at Vanderbilt on September 26, and the talk will be webcast. Stormwater is one of the areas he's working on, emphasizing the need to retain natural systems to help water quality.

Tennessee's Focus Watershed Project for the Sub-basin Committee is on the Hatchie River, one of the last intact streams in west TN, with a floodplain for nutrient management and restoration. We're finding that the sediment yield in those streams is as high from the channels as from ag fields. There's an increased awareness of no till and fertilizer management, as well as responses in practices to rising costs of fuel and fertilizer.

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Updates on Sub-basin Activities (continued)

Dugan Sabins, LA Department of Environmental Quality: In Louisiana, we're still dealing with the effects of last year's hurricanes. There were impacts in the Mermentau Basin, where the Coulee Bouton watershed is located), including water quality impacts. We're continuing to implement the state's non-point source program, along with Farm Bill programs in areas with designated impaired waters, such as the Tensas Basin. USGS has a station operating on Bayou Macon in the Tensas (2003 report.) We're using the 5 year rotation for monitoring watersheds.

Jess Barr, Louisiana Cotton Association: An Ouachita Basin CREP program has been launched, working with NRCS and FSA – it's almost filled, and another one is being started in the rice belt. With EQIP, we have a first-year cost-sharing with producers on yield-monitoring equipment. Soil sampling shows the results from fertilizer application and field monitoring. There's also cost-sharing with livestock and poultry under EQIP.

For cotton, using check-off dollars, we're testing soil electrical conductivity and variable fertilizer applications, also using GPS. The first year is getting results. We're also seeing decreased tillage due to high fertilizer and fuel costs.

The Tensas was selected as a Conservation Security Program Watershed in 2005, and 2 contracts have been signed there so far. For the WRP program, effective with FY 06 applications, the land valuation has been changed for contracts – this will result in no WRP money for ag lands in LA, AR, and MS in the near future, because of the valuation system.

Ken Teague, EPA Region 6: The CWPPRA program is still promoting Mississippi River diversions for coastal restoration. The Bayou Lafourche project, which would divert more river water down that bayou, is having some difficulties. We're also continuing to work with issues of funding and authority for all proposed diversions. We worked with National Marine Fisheries Service (NMFS) on expanding the Violet Siphon, and that's been stalled.

EPA Region 6 is working with Region 5 and USGS to use the Sparrow

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Updates on Sub-basin Activities (continued)

Model to enhance estimates of nutrient loadings and yields, and to apply that to the Lower Miss. River, and tributaries like the Red River. We want to use existing data to maximize the potential, and extend estimates of nutrient loading and yields to the sub-basin scale, which should also aid planning.

Dodd Galbreath, TN Ag Dept.: At a NRCS Listening Session in Tennessee, we emphasized the need for more place-based analysis and assessment, and to invest in standardizing data and hydrological planning.

Vernon Hartley, Miss. Farm Bureau Federation: In our Environmental Program, we're working on Invasive Species, and developing a management plan for those. The Delta Council is sponsoring a workshop on October 12-13 that will look at pesticide buffers for cotton. We're studying runoff effects, and the USDA Riparian Ecosystem Repair Model. We're also working with NRCS on BMPs.

Richard Ingram, MS Department of Environmental Quality: One of our top priorities after last year's hurricanes has been the wastewater infrastructure effort in coastal streams and basins. 6 coastal counties are getting 5 county-wide – we've gotten $500 million for new infrastructure. We asked our watershed teams to include a nutrient component in their planning.

We have priority watersheds in the Yazoo Basin which are addressing nutrient reduction. In the delta, we're working on TMDLs and IBIs. Lake Washington, our Focus Watershed, should finish its watershed implementation plan, with nutrient reduction emphasized. Some 319 funds were earmarked for that. We're also submitting a Target Watershed grant proposal to EPA for Lake Washington.

Phil Bass, EPA Gulf of Mexico Program: The Gulf Alliance held a meeting in Corpus Christi in July. Our Nutrient Reduction Team is working to expand our Gulf nutrient pilot study to all 5 Gulf states. Our first Technical Conference will be in Gulf Breeze in December or January. Senator Lott introduced a funding bill for the Gulf Alliance, which we hope will get to the level of the Great Lakes and Chesapeake programs.

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Updates on Sub-basin Activities (continued)

Jim Wise, AR Dept. of Environmental Quality: Arkansas has been challenged on some designated-use assignments for streams, which could have some nationwide implications, for hypoxia as well.

Doug Daigle, LMR Sub-basin Committee: Many of you know that the Louisiana Hypoxia Working Group has been working over the last few months to keep open the USDA ARS Soil & Water Conservation Unit that's been housed at LSU for a number of years. That Unit was slated for closure in the ARS FY 2007 budget. We've been working with the La Congressional delegation to try to keep them funded. Their work has been really important on both the national and regional level, especially in terms of impacts on hypoxia. They played a key role in the formation of the Ag Drainage Management System (ADMS) Task Force in the Midwest. Research that they've collaborated with others on shows that drainage management up there, in particular the new tile drainage technology that allows water to be held and re-used, can achieve significant reduction in loss of nitrate/nutrient to waterways. They've also started the only research into ag drainage systems here in the Lower river basin, which is primarily surface drainage, in contrast to the sub-surface drainage in the Midwest. If we lose that Unit, we lose a critical research component for the hypoxia effort in the Lower River basin.

Discussion Topics

Report on Lower Mississippi River Nutrient Symposium, June 1-2, 2006

Handout versions of the presentations made at the symposium are available in PDF format on this Web site:
http://www.tetratech-ffx.com/lower_miss/agenda.htm
Click on the hyperlink after each speaker on the agenda to launch the PDF document.

Proceedings from the Symposium are being completed.

The Symposium focused on the following areas of management and science:

Nutrient trends in the Lower Mississippi River Sub-basin;
Status of nutrient monitoring programs in the LMR Sub-basin;
Municipal & Point Sources of nutrients;
Tributary Watersheds – White River, Yazoo River, Loosahatchie River;
Agricultural Management & Practices in the LMR Basin;
The Role of Wetlands in Nutrient Cycling – Riparian forests, , Wetland Assimilation of municipal effluent;
The Distributary Region – Atchafalaya River Basin, Breton Sound Estuary, Barataria Estuary;
Future Trends – Climate Change; Changes in River Management

Lower Mississippi River Nutrient Reduction Strategies

There are a number of key areas of opportunity identified in the Symposium:

BMP, Conservation, and Watershed Initiatives – Two of the areas where some significant results could be achieved are the Arkansas Delta and Missouri Bootheel. The Lower Mississippi Alluvial Valley Stakeholder Initiative undertaken by the U.S. Forest Service and LMAV states also has potential to have a significant impact.

Municipalities – Although two of the major municipalities on the lower river – St. Louis and Memphis – were unable to participate in the Symposium, they can be connected in an information network with Baton Rouge, New Orleans, and other cities to discuss nutrient inputs.

River Management – The Atchafalaya and other projects have potential for nitrate uptake; the time frames for funding and implementation aren't clear yet.

Point Source Initiative – A number of plants along the Industrial Corridor have voluntarily reduced nitrate releases; this information can be dissiminated to other facilities along the river; the LMR SBC can focus on the lower river.

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Areas of Opportunity for LMR Nutrient Reduction Strategies (continued)

Tributary Watersheds – The LMR SBC is committed to promoting and supporting programs and projects that reduce nutrient inputs in tributary watersheds.

LMR SBC Focus Watersheds – The LMR SBC will continue to pursue funding for these projects – Bayou Bartholomew (AR), Cabin Teele and Coulee Bouton (LA), Lake Washington (MS), St. Francis River (MO), West Hatchie River (TN) – and utilize them as case studies.

These areas of opportunity are consistent with and reinforce the actions laid out in the Lower River Nutrient Reduction Strategy developed by LMR SBC last year.

Implementing EMAP Program in Lower Mississippi River – Richard Ingram, MDEQ

A long-standing goal and priority of the Lower Mississippi River Conservation Committee (LMRCC) is monitoring and assessment of the Lower Mississippi. Louisiana and Mississippi have been carrying out some monitoring. The Environmental Monitoring and Assessment Program (EMAP) was carried out in the Upper Miss. for 3 years.

LMRCC was contacted about acting as a forum for discussing on EMAP. EPA wanted the states in the LMR to take the lead. A series of calls and meetings were held to discuss how to develop and support EMAP in the LMR.

Three states are submitting proposals. Three states are using interagency agreements with EPA and USGS. The program will involve comprehensive monitoring, physical and biological, for a cost of $5 million over 3 years. Chlorophyll A data will be included. The data will be incorporated into a series of reports.

The monitoring will take place from the Missouri Bootheel to the mouth of the river, and involve over 100 sites. Dissolved phosphorous will be included. Some states had concerns about probablistic design, and potential impacts on regulated facilities. The process has been complex, but the project is coming together.

Hypoxia Action Plan Revision Process

The Action Plan Revision process is underway – part of that process are the symposia (Upper Mississippi in September 2005, Gulf Science in April 2006, Lower River in June 2006 and Source, Fate and Transport of Nutrients in the River in November 2006.) The information from the symposia, along with the scientific literature that has been published since the Action Plan was adopted, will be reviewed by the Expert Panel selected by the EPA Science Advisory Board (http://www.epa.gov/sab/whatsnew.htm).

The Upper Mississippi River Sub-basin Committee (UMRSHNC) met September 12-13 in Moline, Ill. to discuss the Action Plan revision, and the Ohio River SBC is also having discussions. The LMR SBC can have input from a lower river perspective. One of the key contributions we can make is to actively pursue the opportunities we have in the lower river basin, even though we're not the major source of nutrient inputs.

Discussion points raised by participants (9/19/06):

The seasonality of nutrient loading in the river is becoming a more important issue.

The importance of ortho-phosphate should be kept in view.

We're seeing some institutional erosion at some levels due to funding cuts.

One option for action to consider is a hypoxia-specific program or provision in the next Farm Bill.

The role of land use changes in affecting water quality should be included.

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In terms of the oceanographic science, nitrates are still considered the main driver of hypoxia.

We need to keep emphasizing success stories.

There are concerns about the expansion of bio-fuels, in particular ethanol, in the corn belt, and its potential effects on water quality and hypoxia, because of the expansion of tile drainage and increased fertilizer use for "continuous corn" planting.

There are concerns that some parties may be trying to weaken the Action Plan. There has been some misinformation disseminated during the reassessment process, which should be addressed before the active revision of the Plan begins.

Sub-basin Committee/LMRCC Cooperation Development

The LMRCC and LMR SBC have been partnering since the latter group started, and increased cooperation has been an long-standing goal. The LMRCC Executive Committee will discuss some ideas at their meeting on 9/20, and a memo will be forwarded to the SBC.

Upcoming Events:

Science Symposium: Sources, Transport, and Fate of Nutrients in the Mississippi and Atchafalaya River Basins

Date: November 7–9 2006
Location: Millenium Hotel, Minneapolis, MN
Web site: www.tetratech-ffx.com/nutrient_fate_symposium/
(The Web site has a preliminary agenda with invited speakers, as well as hotel registration and travel information. Note: the hotel's preferred rate booking deadline is October 16th, 2006)
This symposium is free to attend, but you must pre-register on the Web site, www.tetratech-ffx.com/nutrient_fate_symposium/ , to ensure that you will get symposium materials.

Upcoming Events (continued)

This symposium is the fourth in a series of symposiums sponsored by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force (www.epa.gov/msbasin/taskforce/actionplan.htm). This symposium will focus on recent scientific findings about the sources, transport, and fate of nutrients in the Mississippi and Atchafalaya River Basins. Key topics will be addressed at various scales from small watersheds to large rivers, including the effects of these processes on nutrient delivery to the Gulf of Mexico.

This symposium, as well as the previous three symposiums, is a part of the reassessment of the *Action Plan for Reducing, Controlling, and Mitigating Hypoxia in the Northern Gulf of Mexico (Action Plan).* This symposium is sponsored by the U.S. Army Corps of Engineers; the U.S. Department of Agriculture, Agricultural Research Service; the U.S. Department of Interior, U.S. Geological Survey; and the U.S. Environmental Protection Agency, Office of Water.

Visit the Web site at:
www.tetratech-ffx.com/nutrient_fate_symposium/

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